

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of KUROITA, et al.

Serial No. Not Yet Assigned

Filing Date Herewith

Title MODIFIED THERMOSTABLE DNA POLYMERASE

PRELIMINARY AMENDMENT

Please amend the above-identified application as follows:

In the claims:

Please amend the following claims:

17. (Amended) A recombinant DNA vector obtained by inserting the gene of claim 13 into an expression vector.
19. (Amended) A transformant produced by transforming a host cell with the recombinant DNA vector of claim 17.
22. (Amended) A method for amplifying or extending nucleic acid, which comprises reacting DNA as a template, one or more kinds of primers, dNTP and the thermostable DNA polymerase of claim 1, thus extending the primer(s) to synthesize DNA primer extension product(s).
26. (Amended) A reagent kit for amplifying nucleic acid, which comprises 2 kinds of primers, each of the primers being complementary to a DNA extension product of the other primer; dNTP; the thermostable DNA polymerase of claim 1; magnesium ion; at least one of monovalent ions selected from the group consisting of ammonium ion and potassium ion; BSA (bovine serum albumin); a nonionic surfactant and a buffer solution.
27. (Amended) A reagent kit for amplifying nucleic acid, which comprises 2 kinds of primers, each of the primers being complementary to a DNA extension product of the other primer; dNTP; the thermostable DNA polymerase of claim 1; magnesium ion; at least one of monovalent ions selected from the group consisting of ammonium ion and potassium ion; BSA (bovine serum albumin); a nonionic surfactant; a buffer solution and an antibody capable of suppressing at least one activity selected from polymerase activity and 3'-5' exonuclease activity of the thermostable DNA polymerase.

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28. (Amended) A DNA polymerase composition which comprises one or more kinds of modified thermostable DNA polymerases defined in claim 1.
29. (Amended) A method of producing a mutated DNA which comprises reacting DNA as a template, mutagenesis primers, dNTP and the thermostable DNA polymerase of claim 1, thus extending the primers to synthesize DNA primer extension products.
30. (Amended) A reagent kit for producing a mutated DNA which comprises mutagenesis primers, dNTP and the thermostable DNA polymerase of claim 1.

R E M A R K S

This Preliminary Amendment is being submitted to eliminate multiple dependent claims.

It is respectfully submitted that the subject matter of the present application is new, non-obvious, and useful. Prompt consideration and allowance of the application are respectfully requested.

Attached hereto is a marked-up version of the changes made to the title by the current amendment. The attached page is captioned "Versions with markings to show changes made."

Respectfully submitted,

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VERSION WITH MARKINGS TO SHOW CHANGES MADE

17. A recombinant DNA vector obtained by inserting the gene of [any one of claims] claim 13 [to 16] into an expression vector.
19. A transformant produced by transforming a host cell with the recombinant DNA vector of claim 17 [or 18].
22. A method for amplifying or extending nucleic acid, which comprises reacting DNA as a template, one or more kinds of primers, dNTP and the thermostable DNA polymerase of [any one of claims] claim 1 [to 12], thus extending the primer(s) to synthesize DNA primer extension product(s).
26. A reagent kit for amplifying nucleic acid, which comprises 2 kinds of primers, each of the primers being complementary to a DNA extension product of the other primer; dNTP; the thermostable DNA polymerase of [any one of claims 1-12] claim 1; magnesium ion; at least one of monovalent ions selected from the group consisting of ammonium ion and potassium ion; BSA (bovine serum albumin); a nonionic surfactant and a buffer solution.
27. A reagent kit for amplifying nucleic acid, which comprises 2 kinds of primers, each of the primers being complementary to a DNA extension product of the other primer; dNTP; the thermostable DNA polymerase of [any one of claims 1-12] claim 1; magnesium ion; at least one of monovalent ions selected from the group consisting of ammonium ion and potassium ion; BSA (bovine serum albumin); a nonionic surfactant; a buffer solution and an antibody capable of suppressing at least one activity selected from polymerase activity and 3'-5' exonuclease activity of the thermostable DNA polymerase.
28. A DNA polymerase composition which comprises one or more kinds of modified thermostable DNA polymerases defined in [any of claims 1-12] claim 1.

29. A method of producing a mutated DNA which comprises reacting DNA as a template, mutagenesis primers, dNTP and the thermostable DNA polymerase of [any one of claims] claim 1 [to 12], thus extending the primers to synthesize DNA primer extension products.
30. A reagent kit for producing a mutated DNA which comprises mutagenesis primers, dNTP and the thermostable DNA polymerase of [any one of claims] claim 1 [to 12].